



# Traumatic Events and Attachment as Potential Underlying Mechanisms of Self-Regulation

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## Background

- Given that youth in the legal system (YLS) tend to experience higher rates of trauma and have low self-regulation, they represent a critical demographic for examining the link between trauma and self-regulation.
- Studies indicate that youths who have secure attachment with their parents tend to develop stronger self-regulation, highlighting the significance of exploring how insecure attachment styles (anxious and avoidant) impact self-regulation within the YLS population.
- This study investigated the impact of traumatic events on self-regulation, and the connections between insecure attachment styles and self-regulation.

## Methods

- This study included 189 youth participants surveyed across 12 juvenile justice facilities. Analytical methods included correlations and regression analyses.
- Data were gathered as part of a continuous five-year longitudinal investigation into the efficacy and deployment of TBRI in preventing opioid and substance use among youth following their discharge from residential juvenile justice facilities, entitled: "Preventing opioid use among justice-involved youth as they transition to adulthood: Leveraging Safe Adults (LeSA)."
- Data from the baseline assessment were used in the study,  $n=105$  from the control group (standard re-entry) and  $n=84$  the intervention group (TBRI). Preliminary data analyses revealed no significant differences on demographic characteristics.
- Participants were 14 to 18 years ( $M=16$ ,  $SD=1.01$ ) 79.9% male (20.1% female); Ethnicity: 54% non-Hispanic; Race: 34.9% White, 30.2% Black, 16.4% more than one, 14.8% other, 2.6% American Indian/Alaska Native, 0.5% Asian, 0.5% Hawaiian.
- Measures were Adverse Childhood Experiences Questionnaire (ACE), Barkley Deficits in Executive Functioning Scale - Children and Adolescent's - Short Form (DEF), State Difficulties in Emotion Regulation Scale (S-DERS), and Experiences in Close Relationships scale (ECR).
- The ACE, a 10-item self-report questionnaire, evaluated early experiences of trauma. Deficits in self-regulation was measured through the BDEFS, a 20-item parent-report. Emotion dysregulation was captured using S-DERS (21-items) comprised of 4 domains: nonacceptance, modulate, awareness, and clarity. ECR (9-items) assessed anxious and avoidant attachment styles.

## Quantitative Results

Descriptive Statistics	N	Min	Max	Mean	SD
ACE	188	0.00	10.00	3.85	2.78
DEF	187	19.00	80.00	51.87	15.34
S-DERS	186	21.00	81.00	38.30	11.89
ECR Avoidance	184	1.00	7.00	3.01	1.43
ECR Anxiety	184	1.00	7.00	2.15	1.36

## Correlation Table

	ACE	DERS	DEF	Avoidance	Anxious
ACE	1				
S-DERS	.252**	1			
DEF	.189*	.246**	1		
ECR Avoidance	.089	.243**	.109	1	
ECR Anxiety	.356**	.378**	.152	.455**	1

## Regression Analyses

Adverse Childhood Experiences	$b = 1.08$ (SE = .304), $t = 3.54$ , $p = .001$	Difficulties in Emotion Regulation (State)
Adverse Childhood Experiences	$b = .988$ (SE = .43), $t = 2.29$ , $p = .024$	Deficits in Executive Function
Youth Attachment Avoidance	$b = 2.02$ (SE = .60), $t = 3.37$ , $p < .001$	Difficulties in Emotion Regulation (State)
Youth Attachment Anxiety	$b = 3.31$ (SE = .602), $t = 5.50$ , $p < .001$	Difficulties in Emotion Regulation (State)

- Adverse childhood experiences were positively associated with difficulties in emotion regulation. For each additional adverse childhood experience, difficulties in emotion regulation increases by 1.08.
- Adverse childhood experiences also positively predicted deficits in executive functioning, results showed that deficits in executive functioning increased by .988 with each additional adverse childhood experience.
- Results indicated a positive relationship between youth's avoidant attachment tendencies toward one's caregiver and emotion regulation difficulties, such that for every additional score toward avoidant attachment reported, difficulties in regulating emotions increased by 2.02.
- Similarly, anxious attachment tendencies were also found to positively predict difficulties in emotion regulation, as anxious scores increased by one, difficulties in emotion regulation increased by 3.31.
- No regression analyses were conducted on the different attachment styles and deficits in executive function as no significant correlations were determined.

## Conclusion/Discussion

- Adverse childhood experiences were positively associated with difficulties in emotion regulation and deficits in executive functioning. While a positive relationship between youth's avoidant and anxious attachment tendencies were only found with difficulties in emotion regulation.
- Overall, these findings suggest that both traumatic events and insecure attachment tendencies predict difficulties in emotion regulation. Though adverse events also impact deficits in executive function, insecure attachment tendencies appear to not play a significant role in this form of self-regulation.
- These findings are informative for interventions targeting self-regulation, as attachment may influence aspects of self-regulation differently. Interventions aimed at addressing emotion dysregulation should emphasize attachment relationships, particularly for individuals exhibiting avoidant and anxious attachment styles. Promoting secure attachment between youth and adult caregivers is likely to improve emotion regulation, thereby fostering improved mental health.

## Limitations & Future Directions

- The outcomes of this study, which exclusively involve adolescents within the JJ system, predominantly males, may lack generalizability to females or adolescents beyond these confines.
- Additionally, causality remains undetermined in the present study due to its neglect of temporal changes; these findings are only cross-sectional.
- Finally, a larger sample size encompassing a broader range of facilities across multiple regions is imperative, to enhance the probability of accurately rejecting null hypotheses.
- Future research endeavors should incorporate longitudinal perspectives to examine alterations in attachment and investigate how youth regulation evolves in reaction to attachment dynamic.
- Future studies may also examine the role of attachment in the relationship between traumatic events and self-regulation, specifically, examining the moderating effects of attachment on this relationship.

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